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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MANOHARAN, VIRGINIA

ART UNIT	PAPER NUMBER
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1764

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DATE MAILED: 01/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application N .

09/918,648

Applicant(s)

NINOMIYA ET AL.

Examiner

Virginia Manoharan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspond nc address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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### DETAILED ACTION

Applicants should submit a PTO 1449 form listing the references described at pages 1-2 in the specification in response to this office action.

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors e.g., typographical, grammar, idiomatic, syntax, and etc.

Applicants' cooperation are requested in correcting any errors of which applicants may become aware in the specification.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. The claims should be amended to Jepson- type format (if intended) in accordance with rule 1.75 (e) to delineate that which is considered to be an improvement in the art so as to avoid ambiguity in the claims i.e., whether to consider the limitations prior the phrase "said process comprising " as part of applicants' invention or not ? See also claim 9.
  - b. The preamble of claim 1 recites " A process to recovering ditrimethylolpropane however, the body of the claim does not recite a recovery process. The same holds true for claim 9.
  - c. Claim 4 is already in claim 1, claimed twice?
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- d. It is unclear what is being referred to as “ the resultant product “ in claim 4 iii), the product from claim 4 I) or from claim 4 ii).
- e. Claim 4 i)& iii) and claim 1 appear be at odd with one another as to the manner of treating the still residue.
- f. There are no proper antecedent basis for support in the claims for the following recitations.
1. “The formal compound obtained by removing high-boiling components” recited in claim 6. The removing is not initially recited in the base claim 1;
  2. “After still residue is first subjected to crystallization”, recited in claim 8; and
  3. “The resultant reaction mixture”, recited in claim 8;
- g. Claim 8 is at odds with claim 1, the claim from which it depends. Claim 1 recites “ a formal compound .... to acid decomposition”, whereas, claim 8 recites “ the resultant crystallized product is subjected to acid decomposition” which is inconsistent therewith. Underlinings supplied. [A dependent claim incorporates every features of the claim from which it depends and cannot change any limitation already recited in the independent claim.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Su '425.

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At the outset, the limitation recited prior the phrase "said process comprising" is deemed to be known in the art, leaving for consideration only whether the limitation after said phrase imparts patentability to the claims. However, Su '425 abstract discloses hydrolytically decomposing a resulting formal compound which renders obvious the claimed acid decomposition of a formal compound as broadly claimed in claim 1

Claim 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicants' disclosure of admitted prior art as illustrated e.g. by Japanese Patent Application Laid open No. Showa 49 (1974)-133311.

Applicants admit that the " Japanese Patent Application Laid-open No. Showa 49 (1974)-133311 discloses the method of subjecting the still residue of the crude TMP to crystallization using an aqueous solvent in the presence of sodium formate" thereby rendering obvious the process of claim 9 following the "comprising" clause in the preamble.

Claims 2-8 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Malec discloses a process wherein a mixture is stirred, heated and refluxed to obtain a trimethyltolpropane.

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b. JP '401 discloses a process for the production of trimethylopropane and dimethyl lolpropane.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Manoharan whose telephone number is (703) 308-3844. The examiner can normally be reached on Monday-Friday from 7:00 a.m. to 3:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Marian Knode, can be reached on (703) 308-4311. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

V. Manoharan/ng

January 3, 2002

  
VIRGINIA MANOHARAN  
PRIMARY EXAMINER  
ART UNIT 1231764  
1/3/02